THE STUDY OF PLANTING MATERIALS FROM NATURAL ORGANIC WASTE IN COASTAL AREAS OF SIKAO DISTRICT, TRANG PROVINCE

STUDENT : MS. YATAWEEDA BUADANG& MR. NATTAWAT TREERATTANAPUN
ADVISOR : MRS.SIRIKWAN NUPHUTI

Abstract

This project aims to study the use of natural organic waste found at the Wiwathai Samut Beach, Sikao District, Trang Province, as a planting material for agriculture, in order to reduce the waste problem that negatively impacts the landscape of tourist destinations. The organic waste used includes leaves, twigs, and sea plants, which undergo a decomposition process and are adjusted to be suitable for use as planting material. The experiment of using organic waste as planting material for growing eggplant showed that the produced planting material effectively retains moisture and promotes plant growth. The eggplant grown in this material exhibited growth rates similar to those grown in conventional soil. Additionally, this approach provides a way to efficiently use natural resources, reduce beach waste, and promote environmental conservation in coastal areas.

introduction

Research Question

1. CAN ORGANIC WASTE FROM THE BEACH BE USED AS PLANTING MATERIAL?
2. IS THE PLANTING MATERIAL MADE FROM BEACH ORGANIC WASTE SUFFICIENT IN NUTRIENTS FOR PLANT GROWTH OR NOT? HOW?
3. DOES PLANTING MATERIAL MADE FROM BEACH ORGANIC WASTE AFFECT PLANT GROWTH? HOW?

Hypothesis

1. BEACH ORGANIC WASTE CAN BE USED AS PLANTING MATERIAL.
2. THE PLANTING MATERIAL MADE FROM BEACH ORGANIC WASTE CONTAINS SUFFICIENT NUTRIENTS FOR PLANT GROWTH.
3. BEACH ORGANIC WASTE AS A GROWING MEDIUM AFFECTS PLANT GROWTH.

Objective

1. TO STUDY THE USE OF ORGANIC WASTE FROM THE BEACH AS A PLANTING MATERIAL
2. TO DEVELOP A GROWING FORMULA FROM BEACH ORGANIC WASTE THAT CONTAINS ESSENTIAL NUTRIENTS FOR THE GROWTH OF PLANTS
3. TO STUDY AND COMPARE THE GROWTH EFFECTS OF BEACH ORGANIC WASTE AS A PLANTING MEDIUM. FOR PLANTS.

Study area

Underwater Wedding Beach , Sikao district , Trang province

Latitude 7.2020° North and Longitude 99.2210° East

Equipment

Coffee grounds

Phosphate rock

Ash

Organic waste from the beach area

Procedure

1. Defining the study area

2. Collect, sort, and clean organic waste.

3. Analysis of waste and preparation of formulas for creating planting materials

4. Analysis of planting materials from beach organic waste by GLOBE Data entry

5. Set up the experimental planting and record the results

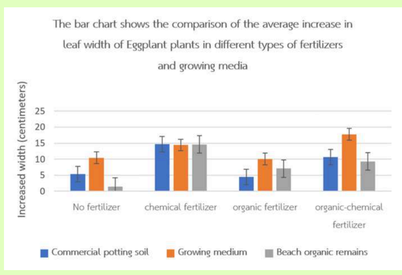
6. Analysis of experimental results by GLOBE Data entry

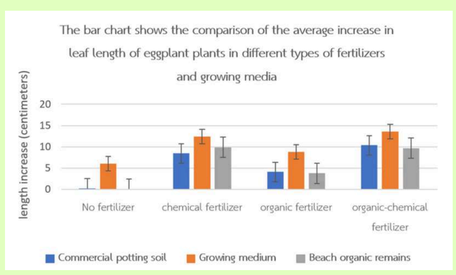
Results

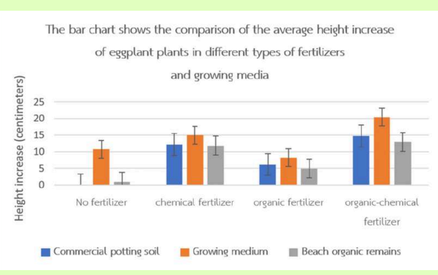
1. The analysis results of beach organic waste and planting materials from beach organic waste compared to the standard values of compost

	Criterion (minimum value)	Beach organic waste	Growing medium from Beach organic waste Ratio 2:2:1:1
pH	5.5	7.24	6.8
N	1	0.49	1.86
P	0.5	0.31	2.70
K	0.5	0.18	1.03
OM	20	58.99	34.66
C/N Ratio	20	70	30

2. The comparison of the average increase in leaf width of Eggplant plants in different types of fertilizers and growing media







Discussion and Conclusions

- Based on the experiment, it was found that the planting medium made from natural organic waste has properties that are suitable for plant growth. The eggplant plants grown in this medium showed growth rates similar to those grown in regular soil. Additionally, the planting medium helps retain moisture well, ensuring that the plants receive the appropriate amount of water.
- Using organic waste as a planting medium is a promising approach to managing waste generated along beaches. Not only does it help reduce waste volume, but it also creates benefits in agriculture and reduces the cost of soil for cultivation. Furthermore, it promotes environmental conservation practices and supports the sustainable development of tourism destinations.

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